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Objections to claim 2

Claim 2 has been made into 3 separate claims (2, 14 and 15). Applicants respectfully submit that this is proper because none of these limitations is new and therefore the new claims do not require further consideration and search. The amendment could not have been made earlier, because the Examiner failed to object in a timely fashion to the form of this claim. Entry of this amendment is therefore proper and is respectfully requested.

Art rejections

The art rejections are respectfully traversed.

Any of the Examiner's rejections and/or points of argument that are not addressed below would appear to be moot in view of the following. Nevertheless, Applicants reserve the right to respond to those rejections and arguments and to advance additional arguments at a later date. No arguments are waived and none of the Examiner's statements are conceded.

The Examiner ignores certain claim limitations because they are in the preamble. Reading of the preamble is explained by MPEP 2111.02. This section makes clear that there is no general rule that limitations in the preamble may be ignored. Where the preamble recites a structural limitation that distinguishes over

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the prior art, the preamble may not be ignored. The terms "light source" and "gas discharge lamp" are plainly structural and do distinguish over Harding and therefore may not be ignored. Ignoring the preambles here is therefore improper.

Claims 1-10 recite a light source. Similarly claims 11 and 12 recite production of visible light. Against these claims the Examiner cites Harding. The Examiner states that Harding teaches a light source. Why does the Examiner think so? Applicants are looking at this reference and they see the words "x-ray source," not "light source." X-rays are not light. It would not be obvious to one of ordinary skill in the art to transport teachings from the field of x-ray sources into the field of light sources.

Independent claims 1, 11, and 12 recite a discharge vessel filled with a filling gas. The Examiner purports to find this recitation in Harding at item 1. Again, why does the Examiner think so? Applicants are reading the description of item 1 as containing a vacuum space per col. 3, line 19, not a filling gas. The Examiner says something about the way the vacuum space is sealed, but Applicants fail to comprehend how the seal can make the evacuated space with a liquid metal target into a discharge vessel filled with a filling gas, per the claims.

Claim 4 recites that the diamond layer has a metal brazing layer. A definition of brazing was previously submitted. The Examiner purports to find this recitation at

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51 of Harding. Applicants respectfully submit that the Examiner mischaracterizes the reference. Item 51 is stated at col. 3, line 63 to be a section containing the diamond window. Indeed in fig. 2, the section 51 is shown on either side of the window, not as being a layer – and possibly also may be a duct per col. 4, line 55. Applicants respectfully submit that this fails to teach the limitations of the claim. Indeed, the Examiner also calls item 51 a frame in the rejection of claims 3 and 9. Applicants respectfully submit that reading all of these distinct recitations on a single element is contradictory and improper.

Claim 5 states that the diamond layer has an organic adhesion layer. The Examiner cites the same element 51 as being the metal brazing layer and as being an organic adhesion layer. Applicants respectfully submit that this is contradictory. Also Applicants find no teaching or suggestion that section 51 is an organic adhesion layer. Where does the Examiner think this is taught?

Claim 6 recites that the electron beam source comprises a thermionic emitter. The Examiner points to Harding's fig. 1, item 3 for this. Applicants only find a description of item 3 at col. 3, line 21 of Harding. This description states only that this item is a cathode. Applicants are not finding that this cathode is of any particular type. Applicants accordingly respectfully submit that the Examiner has failed to make a *prima facie* case against this claim.

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Claim 7 recites that the electron beam source comprises a field emitter. The Examiner cites the same cathode from the reference as being the field emitter that she cited for claim 6. Applicants respectfully submit that this is contradictory. Again Applicants are not finding that this cathode is of any particular type. Applicants accordingly respectfully submit that the Examiner has failed to make a *prima facie* case against this claim.

Claim 8 recites that, after etching, a remaining portion of the substrate becomes the frame. The Examiner purports to find this in Harding; but Harding states that the substrate is connected to the section 51, at col. 4, line 6, after etching. Applicants accordingly respectfully submit that the Examiner misconstrues the reference.

Claim 9 recites that the foil is brazed to the frame. The Examiner purports to find this in Harding, but as far as Applicants can tell, the reference only states at col. 4, line 6, that the window is connected to the frame. Applicants find no teaching or suggestion of brazing.

With respect to the rejections of claims 11 and 12, the Examiner ignores the limitations proceeded with the phrase "adapted to." Applicants respectfully submit that this is improper and without basis in law. The MPEP states as follows:

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2111.04 "Adapted to," "Adapted for," "Wherein," and "Whereby"

Clauses [R-3]

Claim scope is not limited by claim language that suggests or makes optional but does not require steps to be performed, or by claim language that does not limit a claim to a particular structure. However, examples of claim language, although not exhaustive, that may raise a question as to the limiting effect of the language in a claim are:

(A) "adapted to" or "adapted for" clauses;

(B) "wherein" clauses; and

(C) "whereby" clauses.

The determination of whether each of these clauses is a limitation in a claim depends on the specific facts of the case. In *Hoffer v. Microsoft Corp.*, 405 F.3d 1326, 1329, 74 USPQ2d 1481, 1483 (Fed. Cir. 2005), the court held that when a "whereby" clause states a condition that is material to patentability, it cannot be ignored in order to change the substance of the invention." *Id.* However, the court noted (quoting *Minton v. Nat'l Ass'n of Securities Dealers, Inc.*, 336 F.3d 1373, 1381, 67 USPQ2d 1614, 1620 (Fed. Cir. 2003)) that a "whereby clause in a method claim is not given weight when it simply expresses the intended result of a process step positively recited." *Id.* <

This section makes clear that clauses of this sort are not to be universally ignored, particularly where they state a condition material to patentability. In the present application, these phrases limit the functioning and structure of the apparatus. The limitations after "adapted to" therefore cannot be ignored here.

Claim 13, like claim 11, recites a gas discharge lamp. The Examiner says that Harding works like a gas discharge lamp. Applicants respectfully disagree. Harding works by bombarding a liquid metal target 5 with electrons. This is a completely different mechanism from activating a gas with electrons, the gas then emitting

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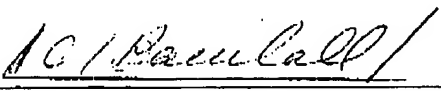
radiation, and the radiation then causing non-coherent light to be emitted from the at least one wall of a discharge vessel, per the claim 13/12. Applicants accordingly respectfully submit that Harding wholly fails to teach or suggest any modification to a gas discharge lamp.

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Applicants respectfully submit that they have addressed each issue raised by the Examiner — except for any that were skipped as moot — and that the application is accordingly in condition for allowance. Allowance is therefore respectfully requested.

Respectfully submitted,

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